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Abstract

This paper presents views on long-range financial planning for public and private higher education. Emphasis is placed on a mix of revenue sources for future support and on key budgetary considerations such as faculty and non-academic wages, the rising cost of graduate education, and the community and junior college movement. A triple crisis is seen in the current educational world: crises in educational opportunity, economics, and government, with the economic crisis accompanied by questions of management, accountability, and control. The escalation of higher education costs and the current crisis over control of the university seem to be eroding the solid public support --and increasing tax funds-- that could be depended on year after year. It is felt that states or regions will not be able to finance the expansion of higher education in the next 10 years from the growth of existing state tax revenues. The key question for higher education support is the mix of tax revenues, depending upon public, federal, and state attitudes toward supporting colleges and universities. The extension of financial planning time periods from the typical biennium to a 5-year or a 10-year comprehensive scheme is recommended. A discussion of the financial status of higher education is presented with a forecast of some directions that its support may take in the future. (WM)

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LONG-RANGE PLANNING--FINANCES HIGHER EDUCATION

Council for Business Officers Conference
Association of State Universities and Land-Grant Colleges
Chicago, November 9 - 12, 1969

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OFFICE OF EDUCATION

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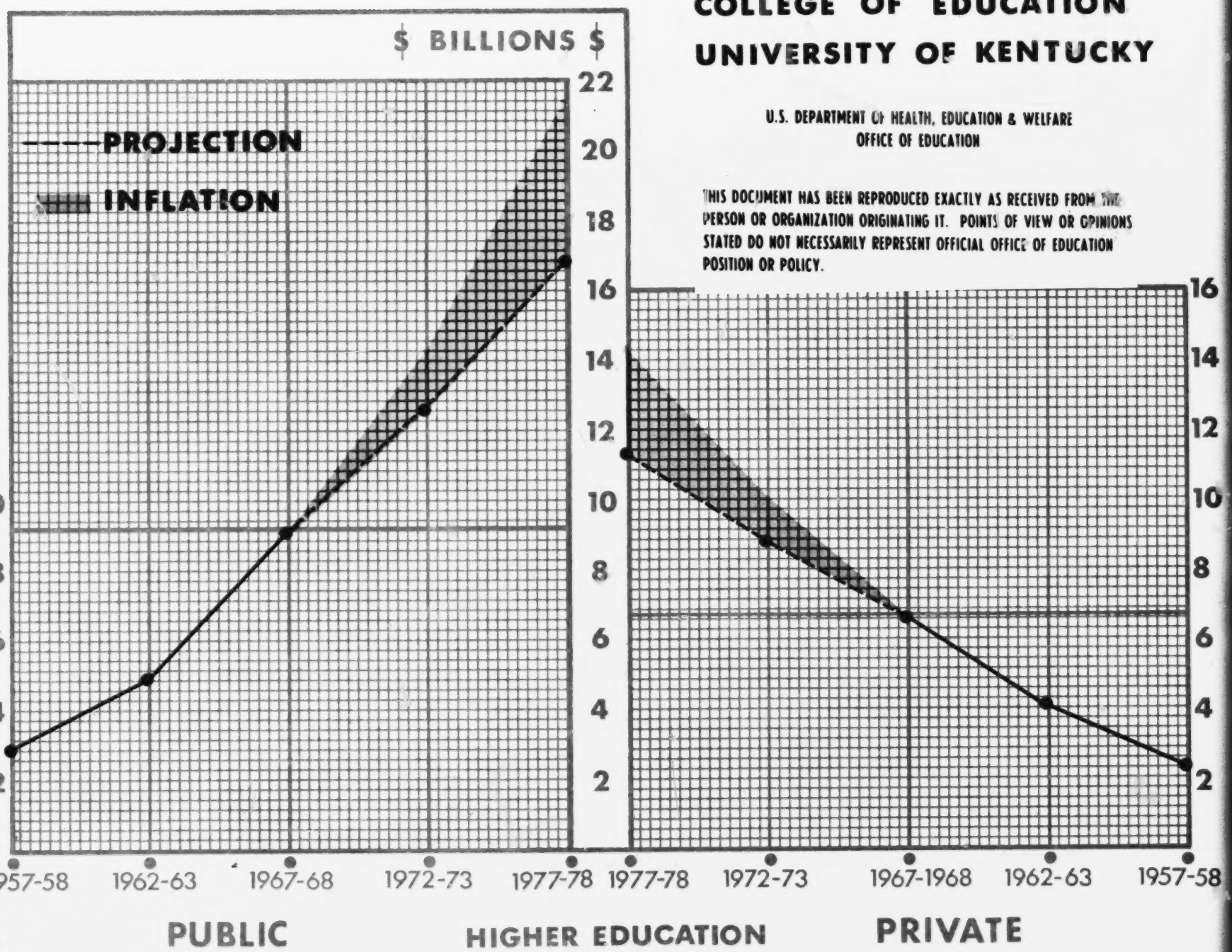

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DATA PLOTTED ON COVER

TOTAL EXPENDITURES FROM CURRENT FUNDS

(Amounts in Billions of 1967-68 Dollars)

CONTROL

Year	Public	Private	Total
1957-58	3.0	2.3	5.3
1962-63	5.0	4.1	9.1
1967-68	9.2	6.7	15.9
PROJECTED			
1972-73	12.7	8.9	21.6
1977-78	16.9	11.4	28.3

SOURCE: U. S. Department of Health, Education, and Welfare, Projections of Educational Statistics to 1977-78, Table 45, pages 89 and 90. U. S. Government Printing Office, Washington, D. C., 1969.

INFLATION IMPACT

(Used Multiplier Factor of 2.7% for Current Operating Expenditures and 4.34% for Capital Outlay)

Year	Public	Private	Total
1972-73	1.8	1.2	3.0
1977-78	4.6	3.1	7.7

SOURCES: The Consumer Price Index, prepared by the Bureau of Labor Statistics, U. S. Department of Labor and the American Appraisal Company Construction Cost Index published in Construction Review by the U. S. Department of Commerce. Indexes applied to projected expenditures for current expenses and capital outlay as listed in Table 45 (see above source reference).

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LONG-RANGE PLANNING--FINANCES

Your invitation to me to address the subject, "Long-Range Planning--Finances," reminds me of my father's first trip to Chicago in 1929. He came as a representative from the state of Kentucky to the National 4-H Club Congress with little knowledge of how he would be received or what would be expected of him. I likewise come with limited knowledge compared to your experience, but with a great deal of anticipation that this subject is of national concern and rightfully so.

I think a word of caution about planning and projecting is in order. This can best be illustrated by quoting from a publication of the Council of State Governments, entitled, "Public Spending for Higher Education, 1970" which was published in 1965. They projected a 60 percent rise in state expenditures for higher education between 1962 and 1970. The actual increase will be more than three and a half times the projected figures. While a part of the difference can be attributed to inflation, the major part of the difference is a serious underestimate of the rise in per student expenditures in the past eight years. The point is that even short range projections are hazardous.

Projections, however scientifically determined or computerized, are likely to be wrong in a significant way. This is especially true in higher education because of the multitude of variables involved; many of which relate to subjects we know little about, such as student motivation, the learning process or means for developing talents of both the gifted and the under-educated.

Now let us turn to our real world and "tell it like it is." To do this I have taken the liberty of extracting several statements out of context from President Otis A. Singletary's (appointed President in August 1969) first address to the University of Kentucky Senate Council just two months past. Hopefully we can draw a keen prospective of what is in the making by relating to a live university setting.

- COLLEGE ENROLLMENT-----In 1960, which doesn't seem so long ago in some ways, there were something like three and one-half million students in our colleges. By next year it is anticipated that that figure will have doubled--that there will be seven million. (Projection in Table 1, Page 25, predicts 10.6 million by Fall of 1977). Our own campus reflects that rather accurately. In the decade from 1959 to 1969 we have more than doubled and I am told that we are going to have 16,000+ when the final desperate count is rendered on this registration here on campus--around a 13 percent increase in the freshman registration. A rather significant point is a 37 percent increase in the transfer from our junior colleges; also a four percent rate of increase in the graduate enrollment.

- FINANCING HIGHER EDUCATION-----A very hasty glance at our own institution's history confirms this fact of rapidly mounting budgets. As recently as 1950 the budget was nine million dollars. As you know, it has moved considerably since. In this year it will be approximately $88 million. Thus, in less than two decades the state appropriation to this institution has moved from less than $5 million to more than $50 million. In perspective--just since 1963 our operating budget and the request for dollars and the flow of dollars has actually tripled.

● STUDENT FINANCIAL AID-----Here again I found it significant that in 1962 we had 115 students receiving scholarship aid and the total aggregate volume was something like $60,000. Six years later over 4,000 students are receiving that same kind of aid with two and one quarter million dollars going into the process.

● PRIORITIES-HARD DECISIONS-----We have not always been required, in effect, to make hard decisions in advance about what to do with the money. But unless I misread the situation, I believe we have moved to a somewhat less attractive plateau in which we may very well be required to make some hard decisions, in terms of programs and buildings, about what it is we need to do most as opposed to what we would like to do. A system of priorities will need to be established.

● VIEWING PUBLICS--ERA OF ACCOUNTABILITY-----The general public is paying more attention to what is occurring on campuses today than at any other time in our history. I suspect this is because of the tremendous amount of investment of public dollars that go into the higher education sector. Thus, the problem, which is not so much yours as it is mine, is that of how, in the midst of all these publics (general public, alumni, legislators, faculty and students), it is possible to establish and maintain some appropriate communication that will enable us to explain to the various groups just what we are doing, and why.

● FACULTY RECRUITMENT AND RETENTION-----The recruitment and retention of an adequate and more than adequate faculty will continue to be a central problem for every university. This is not a simple problem but a three-cornered one, at best. On the one hand there is the problem of numbers - where to find them, identify them and induce them to come. It is a matter of dollars, in terms of translating salaries and fringe benefits into the competitive scheme, and, more subtle, it is the question of the atmosphere of the institution, which, in a sense, addresses itself to the question of how to keep the good faculty that we recruit.

● STATE-WIDE COORDINATION OF EDUCATION-----Since I arrived I have had letters and heard expressions on the need for a really good, tough state board. It is true that more and more states are moving toward one or another kind of regulatory board. They sometimes call them coordinating boards and sometimes, governing boards. The identifiable trends are that more and more states are turning to the creation of these regulatory boards and more and more of these boards are tending to accumulate control and power over the institutions. It is a very difficult problem, and at this point in the country it is unresolved, of what is best or what ought to be done.

● MANAGEMENT OF COLLEGES AND UNIVERSITIES-----I am concerned about the fact of the temper of our times -- the backlash -- call it what you will, and I think if we do not find the ways to handle our internal business -- which we have made a great plea over the years for being kept special -- other people, less concerned and less interested in the University, will get into the business and settle it for us.

● IN CLOSING-----I believe the Presidency is a job that requires many, many hard decisions; that it is difficult, if not impossible, to please everyone, and sometimes, to please anyone at all. End

We have a triple crisis in the current educational world --- the crisis in educational opportunity, the crisis in educational economics, and the crisis in educational government.

Economic crisis always brings with it questions of management, accountability, and control. When this happens attention and concern inevitably turn to the central political questions: Who runs it, or should run it, and how? Immediately, college and university administrators are called upon to explain utilization of facilities, employment of new management techniques, and defend the level of return from the endowment fund portfolio. With these answers in hand governing boards and legislators proceed to inquire into the management of university resources -- sometimes termed "educational productivity." In closing the question is -- Can the colleges and universities better respond to increased enrollments and varied program demands with the dollars in hand? This paper will not attempt to respond to this question, but will view Higher Education both public and private with emphasis on the mix of revenue sources for future support and key budgetary considerations such as faculty and non-academic salaries, expensiveness of graduate education and the community and junior college movement.

It takes an enormous effort for institutions of higher education to maintain its present level and this effort must be extended indefinitely if the Nation is to achieve its goal of expanded opportunity and acknowledged excellence in scholarship.

Now, however, higher education is in danger of developing a serious credibility gap which would imperil the continuation of this maximum effort. The consensus which year after year has provided solid public support -- and increasing tax funds -- for higher education is being eroded. One cause of this erosion is the apparently endless escalation of the costs of higher education. It is true that an expanding endeavor generally involves rising expenditures, and that higher education is still expanding rapidly. It is also true that the effects of inflation only compound the dollar needs of universities and colleges. But taxpayer resistance to any and all tax increases is growing, and higher education is affected, as are all other tax-supported endeavors.

Another cause of erosion, equally serious and more dramatic, is the current crisis over who controls the University: radical students, faculty members, the president, the trustees, the governor or the legislature? Aside from the obvious dangers of life and property, campus violence and disruption heighten public hostility to higher education where it has not existed, and this hostility only increases resistance to pleas for more money.

Perhaps there could be no more vital service than to shore up higher education's credibility, to keep open the channels of communication between the academic community, on one hand, and state government and the general public, on the other.

"Although money does not guarantee an outstanding education program there cannot be quality or effectiveness in higher education without adequate financing" --(Winfred L. Goodwin/Director/Southern Regional Education Board.) The complexity of higher education and constant changes required by new and evolving technology and knowledge make it extremely difficult to estimate costs except in gross terms. Some projections for higher education make it clear that the financial demands upon the local, state and federal

treasuries in the 70's will more than double, possibly triple, and costs will rise faster than revenues; therefore, higher education will require a larger slice of the total revenue pie. Currently, increases in enrollment account for 58 percent of the higher costs; and higher costs per student account for 42 percent of the increase (inflation is a part of each percentage figure) Education in the Seventies/U. S. Office of Education/Published 1968.

PUBLIC HIGHER EDUCATION

Almost every major issue in higher education is related to who pays for it (society or the student and his family and what relative proportions) and how it is paid for (through the student, or through the support of institutions as such, through voluntary support and public taxation, and in what proportions).

"The federal role during the last twenty years has been one of selecting things deemed to be in the "national interest," and offering financial aid in the areas -- for research in the natural sciences and in the health fields, student loans and increasing emphasis on aid to the economically and culturally disadvantaged." --- (Russell I. Thackrey/Executive Director/National Association of State Universities and Land-Grant Colleges.)

May I quote Russell I. Thackrey to broaden the base of discussion about financial responsibilities as related to long range planning: "I believe that the chief beneficiary of higher education is society, and that society should play the major role in financing higher education and decentralization of decision-making should filter through the federal government and state governments to the institutional governing boards (public or private) from whichever source funds originate."

Tax sharing is experiencing rising popularity and has now achieved a level of serious consideration. Implicit in the tax sharing idea, as has already been pointed out, is the conviction that we have come to a point in history when it is necessary to adopt new intergovernmental fiscal policies which reflect a change in emphasis, giving more discretion and responsibility to state and local governments and moving away from an over-reliance on central direction and controls.

On the economic side, Walter Heller argues that tax sharing is needed in terms of the national tax policy, to preserve elements of balance and flexibility in our global tax system. He states, "Not only are sufficient new state-local taxes going to be hard to come by, but they are very likely to accelerate the movement toward a regressive overall tax structure."

"We are now reaching a point where it is becoming increasingly apparent that the financial resources of the states are insufficient to provide the services within the limitations of taxation fields preempted by the upper level of government for providing assistance to the states to provide educational services. So as long as federal income tax rates are relatively high, states are prevented from supplementing their revenues through state income taxes." --- (Lorne H. Woollatt/Associate Commissioner for Research and Evaluation/New York State Education Department.)

PRIVATE HIGHER EDUCATION

The private sector of higher education in the nation is in more serious financial difficulty than is generally recognized. Private institutions have had to increase tuition rapidly to meet rising costs, and this has had the effect of limiting the number of students who could afford a private education. In the last three years, the number of freshmen entering private institutions has decreased 5 percent nationally.

A decline in enrollment in the private institutions will shift more of the burden to the public institutions, and the taxpayers will wind up paying for the college education of more youth. Of equal concern will be the loss of a number of private institutions and their capacity to provide educational opportunities to youth.

The problem of support of private higher education is a very complex one to deal with, but it should not be decided by default.

Private institutions can be divided into three groups, based on their financial position. First are the well supported, highly selective, high prestige private universities and liberal arts colleges which have become national in support, as well as outlook. Second are the institutions who are solvent financially, but which are having more and more difficulty meeting rising costs. Up until recently, they have not been interested in public support, and their trustees and other constituents have cherished their independence. If they do not get more state and federal assistance, they will be in great difficulty in the next decade. Third are the poor and very poor colleges. Some of these have become accredited but many are unaccredited. Perhaps they should be allowed to go out of existence as quietly as possible.

"The problem for the state that decides to support private higher education is to distinguish between the institutions that provide an adequate program, and those that provide a substandard one, and to work out a basis for supporting the former, and not throw good money after bad in the latter." -- (John K. Folger/Executive Director/ Tennessee Commission on Higher Education.)

This brings us face to face with the problem of public financial support for private higher education. Our states need to recognize that the private institutions probably won't be able to solve their financial problem themselves, and if they can't continue, the public will have an even larger number of students to support in the public institutions. How far can we go in this direction is the real question. Can we conclude that the public treasuries can invest monies so long as the total expenditure for higher education is less than it would be if the students enrolled in public institutions?

SOURCE OF SUPPORT--ENDOWMENT FUNDS

One of the many thankless responsibilities of college and university trustees in recent years has been the financial welfare of their institutions at a time when operating

costs are racing to catch up with an inflationary economy. "In 1900 the earnings of endowment funds paid 25% of the costs of higher education, by the late 1950's the relative contribution of endowment earnings was only one-fifth as large, or 5%.

Diminished though the role of endowment funds may be, they nevertheless remain vitally important to a number of institutions and their contribution to higher education in general remains indispensable." The Law and the Lore of Endowment Funds, Ford Foundation, Page 1 and 2, April, 1969. Even for institutions with relatively small endowments, the earnings from invested funds sometimes provide the thin margin necessary to escape a deficit. If endowment funds were taken away from our institutions (1966 book value was 1.8 billion Public and 7.0 billion Private) or if contributions were seriously reduced, alternative sources in many cases would be simply unavailable. The inevitable result would be curtailment of operations and a decline in the high level of the nation's educational standards. For this reason it is mandatory that every effort be made to preserve and if possible to increase the purchasing power of our endowment funds.

While the explosive increase in costs has been the primary reason for the comparative decline in the importance of the contribution of endowment funds, it has not been the only reason. The portfolios of many endowment funds have been far too heavily laden with fixed-income securities to resist the relentless erosion of inflation.

We find a great majority of endowment fund managers, choosing between a high current yield of dividends (or interest) on the one hand, and long-term growth of principal on the other striving conscientiously to strike a balance between the demands of today and those of tomorrow. But too often desperate need of some institutions for funds to meet current operating expenses has led endowment managers, contrary to their best calculated judgment, to forego investments with favorable growth prospects if they have a low current yield. Note: In a recent survey conducted by the Ford Foundation eighty-five percent of the responding 186 institutions stated that their choice of investments is influenced at least to some extent by a desire for a high current return of dividends (or interest) which at times dissuades them from making investments with "unusually attractive long-term growth prospects." A comparison of fifteen educational institutions with the University of Rochester bears out the long-range consequences of a hand to mouth policy.

Investment Performance of College Endowments

	Total Return			
	Ten Years to June 30, 1968		Five Years to June 30, 1968	
	Cumulative	Annual Average	Cumulative	Annual Average
Average of Fifteen Educational Institutions	134%	8.7%	47%	7.9%
The University of Rochester*	283%	14.4%	127%	17.9%

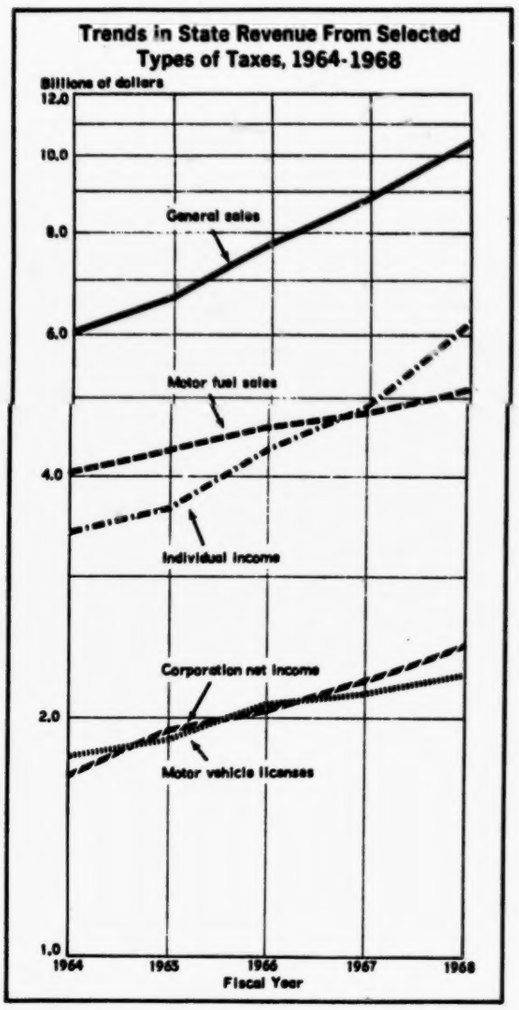
*SPECIAL NOTE---The University of Rochester is shown separately because it is a well-known example of an educational institution that almost twenty years ago adopted the objective of long-term growth for most of its endowment fund.

SOURCE: The Law and the Lore of Educational Funds, Ford Foundation, April, 1969.

SOURCE OF SUPPORT--STATE AND LOCAL FUNDS

"The states have traditionally had the responsibility for financing public higher education," stated L. Felix Joyner, Vice President for Finance, University of North Carolina. I would like to set forth some impressions about the ability of state governments to continue to shoulder the brunt of this responsibility.

In synopsis, the states are pretty much restricted to regressive consumption taxes (See graph below). Such taxes seem to have a relatively low toleration level beyond which the public becomes discontent. This discontent means that expanded use of these revenue raising devices is politically unpalatable.



SOURCE: U. S. Department of Commerce, Bureau of the Census. State Tax Collections in 1968: Series GF-No. 1. Washington, D. C. Government Printing Office, 1968.

The problem is compounded by the increasing insistence for support of competing demands for state dollars. Society is demanding more for its disadvantaged members. These competing demands restrict the state's ability to transfer new funds generated by the existing revenue structure exclusively to the higher education function.

What alternative courses of action are available to help the states shoulder their responsibility? "The states responsibility" in the last analysis amounts to what the individual states want to do and can do. In other words, "the state's responsibility" in any enterprise, financed jointly or alone, is what that state wants its responsibility to be, translated every year, or every other year, into appropriations by a legislature.

State finance officials are saying that the state's ability to absorb the new costs of higher education is limited to about the same share or percentage as it receives today. (Reference: Courier-Journal Article quoting Lawrence E. Forgy, Jr./ Department of Finance/Commonwealth of Kentucky). This argument is echoed by the political leaders who think that state and local governments are approaching the ends of their string in terms of total taxing ability and because of the strength of competing demands for state resources.

This position is partially supported in an analysis of "State and Local Revenue Potential" recently published (1969) by the Southern Regional Education Board, but it goes one step further and explains the shortcomings of the state tax structure to keep pace with needs. It also touches on under-utilization of major tax sources. The following excerpts highlight the report:

The search for additional revenue springs from the fact that expenditures for state-local functions (especially education and welfare) tend to increase faster than tax revenues, thus creating a revenue "gap." The income elasticity[1] of state-local tax systems is relatively low while the elasticity of expenditures is relatively high. Income elasticity varies from about .8 in states depending heavily on consumption and property taxes to 1.4 in states with highly progressive income taxes. Only about one-fifth of the 50 states have tax systems with revenue automatically increasing faster than Gross National Product.

Possible sources of potential new revenue for state and localities are:

1. New taxes -- 15 states are without a broad-based personal income tax, nine without a corporate income tax, and six without a general sales and use tax. "The ever-growing demands for additional revenue to provide the new and expanding public services at the state and local government levels make it abundantly clear that states need to make effective use of both consumer and income taxes." - (Advisory Commission on Inter-governmental Relations.)

2. Increasing the yield of presently used tax sources. This can be accomplished by raising rates or expanding the tax base.

3. Greater utilization of present tax sources.

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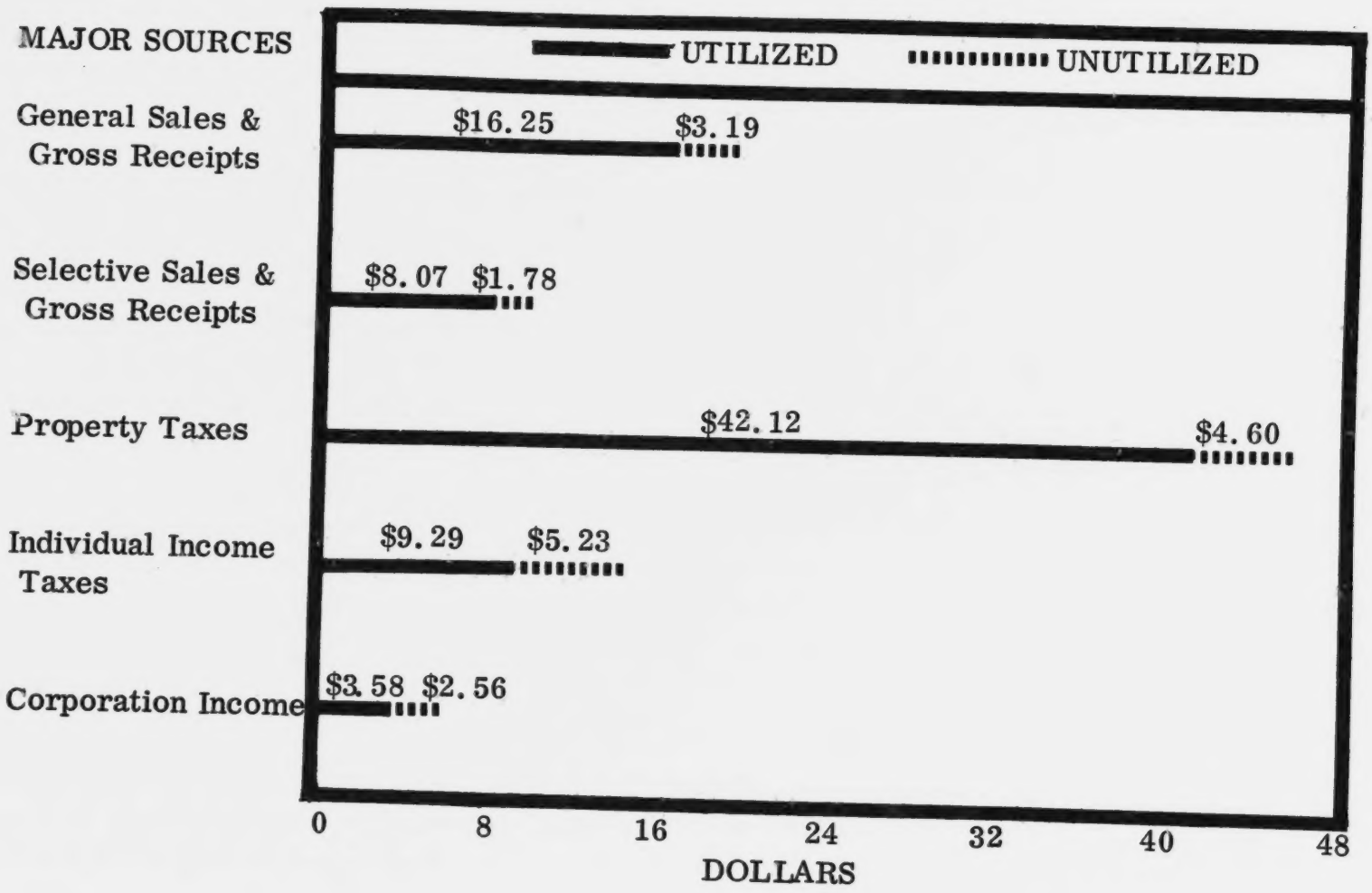
[1] The degree of automatic responsiveness of tax yields to changes in Gross National Product is called income elasticity. If an increase of one percent GNP is accompanied by a one percent change in tax yields, the tax system is said to have an income elasticity of one. Taxes are termed elastic if they grow relatively faster than GNP (elasticity is greater than one) and inelastic if they grow more slowly than GNP (elasticity is less than one).

UTILIZATION OF MAJOR SOURCES OF TAXES PER $1,000 OF PERSONAL INCOME, 1967*



*Graph illustrates 50 states, including those not using a given tax.

EXPLANATION: The amount indicated would be collected if the average rate per $1,000 of personal income were collected. The assumption is that all states collecting more than the average will continue to do so and states doing a less than average job will impose the average rate. The utilized bar represents actual collections and the unutilized bar represents the unused potential that would bring below-average states to the average rate per $1,000 of personal income.

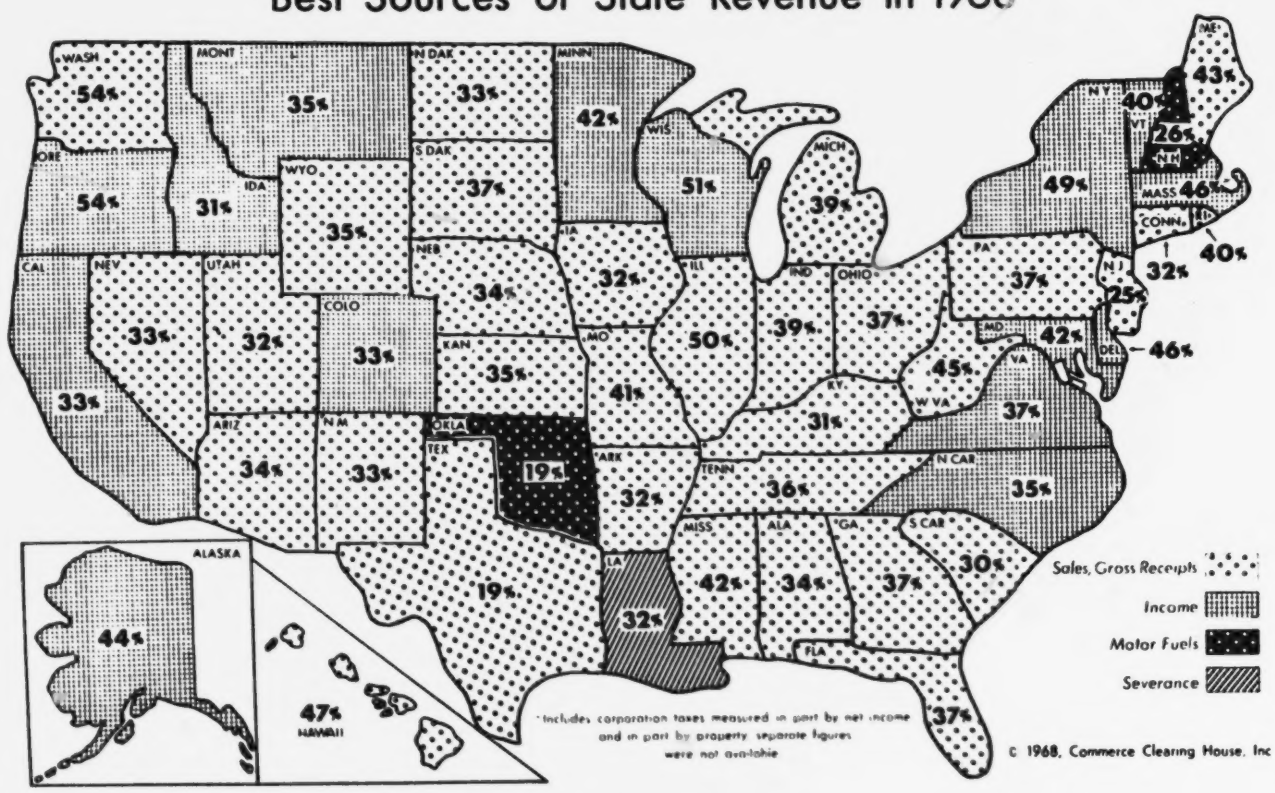
NOTE: Tax legislation was unusually heavy in 1968, an off year in state legislatures.--(NEA Research Bulletin, March 1969 Issue). Therefore, the above graph should be updated to reflect utilization in 1969.

SOURCE: U. S. Department of Commerce, Bureau of the Census, Current Population Reports, November 1967, Table 7. Extracted from "State and Local Revenue Potential", Monograph Number 15 in 1969, Southern Regional Education Board.

The capacity of a people to contribute to the support of their government is determined by many factors including the population's total resources -- its income, wealth, business activity, the demands made upon these resources; and the quantity and quality of governmental services provided. Their willingness to pay taxes is likely to be greater if the particular tax, at a specific rate, is regarded as fair, if the public need for the program is acute; and if the governmental program has widespread public support.

Most state governments are going to have to modify their state and local government tax structures, re-evaluate the basic organizational structure of higher education, and make comprehensive planning an essential element in administration. State and local revenue systems will need to be strengthened. (Best source of state revenues is shown in chart below) Uniformity will obviously not be required from state-to-state but the price of admission to revenue sharing, whatever it features, will be productive and equitable tax systems at state and local government levels. The Advisory Commission on Inter-governmental Relations suggests that effective local use of the property tax and relatively exclusive state level use of the sales and income taxes provide the basic elements of a system which would offer the flexibility demanded for partnership in future federal-state financing relationships.

Best Sources of State Revenue in 1968



SOURCE: U. S. Department of Commerce, Bureau of the Census. State Tax Collections in 1968: Series GF-No. 1. Washington, D. C. Government Printing Office, 1968.

The following points are offered for consideration:

- State and local governments are, in terms of recognized capacity and present effort, approaching their limits in ability to finance governmental programs at the current level of demand.

- States will continue to shape their income taxes to conform to the structure of the federal tax which in turn can be piggy-backed (surtax rates) -- Alaska is an example.

- New financing arrangements such as revenue sharing are desirable and will materialize.

- Higher education's needs will be met through a new mix of federal, state and local tax support.

- The states have the potential to do substantially more.

I think in terms of priority, each state needs to consider reorganizing its administrative and tax structures. Not because it will save us vast sums of money, but to assure the taxpayers that their money is being handled as effectively as possible. I also think we need to overhaul our tax structure in order to bring it in line (more progressive) with the federal tax structure to make the flow of funds into the state system a lot easier to accommodate.

"Oddly enough, in the United States, with its long history of universal education, we are only beginning to realize the very high correlation between the level of education and the economic well-being of a state's population. The states which can provide universal high quality education through the graduate levels of college, and then provide a social environment in which educated people wish to live will be those most fortunate in the country. Economic prosperity will be a natural outcome." ---(Lyman A. Glenny/ Director/Illinois Board of Higher Education.)

SOURCE OF SUPPORT--FEDERAL FUNDS

"Most of the efforts of Congress has been to blueprint the future of the federal investment in higher education by trying to meet the most urgent needs of education by a reshuffling of priorities within a total and fixed budget for education." ---(John F. Morse/Director/Commission on Federal Relations/American Council on Education.) Clearly this will not work. It makes little sense to recapture facilities funds at the expense of student aid, or funds for upgrading ghetto schools at the expense of teacher-preparation programs aimed at adequate staffing for those schools. We will never break through until the priorities are reshuffled within the total federal budget, and to bring this about I conceive to be the responsibility of strong lay and professional education organizations and a concerned citizenry.

It has become fashionable to refer to federal programs as a designless structure of "categorical" aids to support the weaker components of higher education. Probably the largest missing component is general institutional support for all institutions of higher education. (Table 3, Page 27, illustrates current allocation of federal funds to specific programs.) Call it if you will, a national endowment, with annual payments assured to all accredited institutions to be used exactly as if it were endowment income. This is not a revolutionary step. We have already tried it in the case of the land-grant colleges and found it to be enormously successful. Such a program could continue to undergird the various ca torical programs mentioned earlier. It could provide funds indirectly for basic institutional programs that are not likely to win direct federal suppor It could enable institutions to resist the explosive pressure to increase their charges to students. It could help the weaker institutions to move toward even greater excellence.

Obviously we must assure ourselves that the growth of federal programs will not dry up state and local support on the one hand and private support on the other. I cannot help but observe that alongside the growth of federal support in the past decade there has been an equally fast growth in (dollar) support coming from the states and from the private sector. (See Table 2, Page 26.) My guess is that there will be a gradual shift in the balance and that the shift will occur at different levels. Are we not, perhaps, at the point where responsibility for medical education will be almost totally a federal one? With the mobility of our most highly educated manpower, may not graduate education a decade hence be in almost the same position? Is it not possible that the more nearly institutions are identified with local needs (community colleges) the more clearly it will be the responsibility of local sources to fund them? If such a question has validity, it suggests that the degree of federal responsibility will be directly proportional to the national as opposed to the local characteristics of each institution.

What is the size of the problem(institutional expenditures)? "It looks as though, between now (1969-70) and 1976-77, we will need to double the amount of money going into institutions of higher education, from a figure of $20 billion [1] to $40 billion then. ---(Clark Kerr/Chairman/Carnegie Commission on the Future of Higher Education.)

I would like to draw upon Clark Kerr's June 12th paper presented at the annual meeting of the Southern Regional Education Board when he addressed the subject, "What is the Federal Responsibility?"

"In terms of shares, federal versus state, about half of the public money is federal and half is state. I suggest that the federal share should go up to a little less than two-thirds of the public contribution and the state-share fall to a little more than one-third. The federal government has two-thirds of all public money, and only one-third remains at the state and local level. And so, since the federal government has two-thirds of the money, it would seem reasonable that it put in two-thirds of the public expenditures on higher education. The federal income is also more expansible than is the income of state and local governments, given the tax structure of the United States. I think it is both possible and desirable for the federal government to go from one-half of the public share to approximately two-thirds." --- A few statements were modified, but hopefully did not lose their original meaning.

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[1] Estimated distribution in 1968-69 -- 49% student education, 17% organized research, 16% auxiliary enterprises and student services and 18% for capital outlay. Financial Status of Public Schools, National Education Association, 1969.

This breakdown of sharing has strong logic since the federal government, with its substantial monopoly of the income tax can most quickly increase revenues as the economy expands and most equitably distribute the burden on the basis of ability to pay. If you reason along these lines the primary source of increased public revenue will be the federal government.

In summary, I recommend that first priority among new federal programs should be one of substantial operating support for institutions of higher education, public and private, throughout the country. This is needed to curtail and if possible lessen the rapidly rising cost of higher education to the student and his family. This point will be elaborated upon when I discuss tuitions, etc.

I would further urge that the future federal role in higher education be a balanced role. It would involve and emphasize aid to students, particularly to disadvantaged students, include a loan program and other elements permitting freedom of choice. But it would provide direct public support for institutions, public and private, which are willing to conform to public policy by admitting all qualified students without discrimination. It would help keep college charges down, rather than forcing them to go up.

I would encourage, and not discourage, increased state and local and private support, and foster diversity and variety in higher education.

1

TUITIONS, STUDENT LOANS AND GRANTS[1]

Today there are many proposals for change and much energetic activity among educators, public officials, and economists looking toward solution of what is often called the crisis of educational opportunity in higher education. From these many proposals, however, one can identify two policy questions of transcendent importance. The first of these is: What fraction of total educational cost should be borne by the families of students and what proportion by "society" through taxes and gifts? The second question is: Should students whose parents cannot meet all their educational costs be financed primarily by means of loans or grants?

I propose that "society" should bear a substantial share of the instructional cost[2] for all income classes, that students of low-income families should be financed primarily by grants, and that loans should be used sparingly as a supplemental form of aid. The rising cost of higher education to the student and his family is a matter of increasing concern. Several campus disturbances recently have been related to increases in student charges.

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[1] Credit for the basic ideas and proposals presented in this paper on the subject of Tuitions, Student Loans and Grants is due Howard R. Bowen/President/University of Iowa.

[2] Includes research and public service expenditures in support of instructional program.

Tuition at present levels represent a tiny fraction of the total cost -- less than 10 percent (1969-70 budget for University of Kentucky reflected an estimated 10.5% of total receipts to be derived from tuitions). A moderate expansion or contraction of tuitions would not change the total picture decisively. If there is to be an opening of opportunity through higher education to young people of low and middle-income families, the major task will be the finance of students, not the finance of institutions. This does not mean that institutions do not need help. They do. Indirectly, the institutions would benefit through subsidized portions of tuition fees from federal, state and local, and gift efforts.

Wide agreement seems to have been reached on several propositions concerning the role of the family in the finance of higher education. First, the family should contribute according to its ability toward the undergraduate student's living costs and incidental expenses. Second, the student should contribute as much as possible through part-time work, though this work should not interfere unduly with his studies and other valuable activities of college life. Third, some form of aid should be available, either grants or long term loans to students, to cover living expenses and college costs beyond the family's capacity. Finally, instructional costs should be distinguished from expenses for research and public service not closely related to instruction, and the latter should not be charged to families by means of tuitions but rather should be financed by taxes and private gifts. Agreement on these propositions does not necessarily justify them in principle, but it makes them workable in practice.

But beyond these areas of general agreement, there are differences of opinion on two major issues: (1) the proportion of the educational costs of colleges and universities to be met from taxes and private gifts and the proportion from tuitions; and (2) when families are not financially able to provide all educational costs for their children, the relative role of gifts and grants in making up the deficits.

Traditionally in America, low tuitions have been advocated "to keep open the doors of opportunity to aspiring young men and women." The raising of tuitions has almost always been done reluctantly and only when other sources have proved inadequate. The present position of tuition in the finance of higher education is largely the result of expediency, not of principle. In recent years, however, attitudes have been changing, and high tuitions, even high enough to cover all instructional cost, are often advocated on principle.

Three major arguments are often advanced in favor of high tuitions. The first argument is an application of the "benefit theory," namely that the cost of public services which benefit particular individuals should be borne by the beneficiaries (students and parents). Even if one accepts the benefit theory, it scarcely justifies the raising of tuitions. This argument could be reversed and attention focused on the large benefits that society derives from higher education through broad economic, social and cultural advancement, and society (taxpayers and donors) might reasonably bear some of the cost on the basis of the benefit theory.

One study that came to my attention which implicates the benefit theory was a dissertation completed in 1968 by Albert A. Ewald at Michigan State University. The study generalizes about the costs of various "kinds" of credit hours and attempts to summarize

the total cost of providing the instuction for different degrees. For example, a degree in a highly specialized science will cost more than a degree in a routine and highly stylized field. Mr. Ewald may have provided us a point of departure for further studies into the pricing policy for various degrees and for more quantitative comparisons of the actual costs of programs.

He concludes with a statement of results which says -- First, the average input cost of the education required for the awarding of a bachelor's degree is between $5,219 and $5,361. The average input cost for the education required for the awarding of a master's degree is between $2,752 and $3,098. Secondly, the price of degrees -- tuition -- is invarient with respect to the type of degree sought by the student.

The second argument for high tuitions is an application of the "ability theory," namely that families who can afford to pay the cost of educating their children should bear the full cost. If one argues that the children of the "rich" or "well-heeled" are not paying their share of higher educational costs, the remedy is not necessarily to raise the tuition charge to the level of full cost but to revise the tax system. It is timely to mention that the Nixon Administration has placed before Congress a major tax reform bill that would bring about sweeping changes --- hopefully provide a more "equitable" tax system. One would also question why higher education should be singled out from among other social services (police protection, public libraries, etc.) for differential pricing. On the whole, the ability theory is not a conclusive justification for high tuitions.

The third argument for raising tuitions is what I would call the expediency argument. Whenever institutions cannot find adequate funds from any other source, they turn to tuitions as a last resort. Since tuitions still represent only a small fraction (less than one-tenth) of the total cost of higher education, and since the demand for higher education is insistent, tuitions could be raised substantially without much effect on the budgets of institutions. The expediency argument is the one that usually prevails over the more subtle "ability" and "benefit" theories.

Having argued against high tuition and a massive student loan plan, I am perhaps called upon to present a counter-proposal. One that has been espoused by Howard R. Bowen/President/University of Iowa. The plan embodies three parts: (1) Students would be financed partly by grants based on the difference between a minimal college-going budget and the financial ability of parents and students as determined by a means test. (2) In addition, students would have access to long term loans, without a means test, to take care of "extras" over and above the minimum provided in the grants or the amounts supplied by parents. Both the grants and loans would be provided from federal funds but would be administered by the colleges and universities. (3) Institutions would receive unrestricted grants by which the federal government would share in future increases in cost per student and in the cost of future enrollment growth.

The proposed grants to students would be available to any student showing need. It would provide only the bare essentials for low-income students and, because of the means test, would do nothing for students from families of middle and upper incomes. This minimal and rigid grant system should be supplemented and reinforced by a

national system of student loans to provide flexibility, to meet individual needs and preferences, and to enlarge opportunity. The loan system would carry with it no loan tests, and hence would be available to persons of all income classes. The combined grant-loan system would give every young person a chance for as much higher education as he wished and was qualified to receive. The grants would provide education on a minimal basis without the students having to go in debt. The loans would give the student freedom and flexibility but at the sacrifice of going into debt.

Finally, unrestricted grants to institutions, would enable the federal government to help the colleges and universities meet the additional costs of future enrollment growth and of the inevitable future increases in cost per student. The federal program should be designed to share in future increases in costs, to help relieve additional burdens, not to assume more of the present burdens.

Federal aid would be apportioned to institutions under a formula, and the federal government would pay each institution a fraction (e.g., half) of any increase in cost by reason of enrollment growth and a similar fraction of any addition to cost by reason of generally increasing educational cost per student. The plan would include simple but effective provisions to hold federal outlays to reasonable levels and to give the federal government a position of revenue sharing partnership, but not dominance, in the finance of higher education.

The role of tuitions, student loans and grants deserve our immediate attention. I call to your attention a survey released Saturday, September 27, 1969 by the Office of Institutional Research of the Association of State Universities and Land Grant Colleges. "Tuition charges at the nation's major public colleges and universities rose this year at a record rate of 16.5 percent. The median tuition and required fees at public institutions of higher education went from $369 per resident student in 1968-69 to $430 in 1969-70."

"The median total charge, including all costs such as room and board in addition to tuition and required fees, that a resident student is paying at a typical state university or land grant college this year is $1,325 compared to $1,235 last year." An increase of 7.3% for one year.

Will we let higher education be priced out of the reach of its most deserving youth?

KEY FACTOR--SALARIES AND WAGES

One of the key factors in forecasting future expenditures for higher education is the trend of faculty salaries. In most institutions about half the operating budget for educational and general purposes goes for faculty salaries, so in sheer dollar volume the totals of faculty salaries in the budget have as much effect as all other factors combined. Furthermore, many of the other budget variables seem somehow to follow the trend in faculty-salary expenditures.

The prediction can confidently be made that the average faculty salary will continue to increase, probably at a rate of at least five percent a year. This would mean a doubling of the average salary level in fifteen years. (A Professor(s) receiving $15,000 in 1969 could be expected to rise to a salary level of $25,000 by 1979). Certainly there must be continued increases concomitant with the changing value of the dollar, so that the purchasing power of the faculty salary is not eroded. Several institutions are already giving serious consideration and will possibly adopt a cost of living -- merit basis to award salary increases. Not only is average faculty salary a key cost factor, but the number of faculty members required to staff the colleges and universities. (See Table 5 Page 29). Although administrative salaries are a separate item it still deserves to be mentioned since they will likewise increase at about the same rate as faculty salaries.

The 10-year (1957-58 to 1967-68) percentage increase in median salaries paid faculty in higher education can be compared as follows:

	Percent of Increase 1957-58 to 1967-68
All 4-Year Colleges & Universities	70.2%
Public 2-Year Colleges	46.4%
Non-Public 2-Year Colleges	79.6%

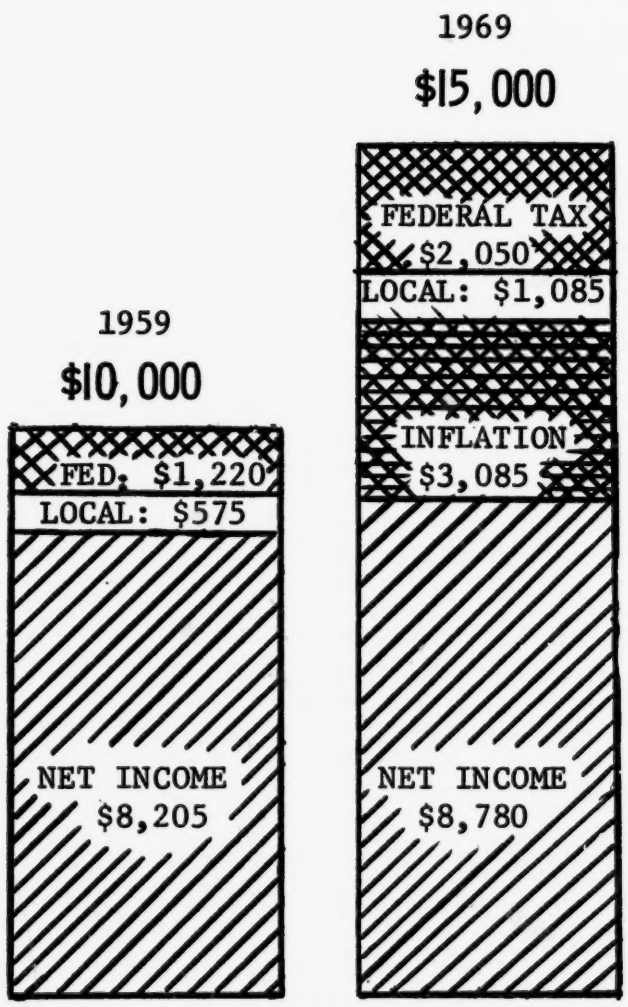
SOURCE: Projections of Educational Statistics to 1977-78, published by the National Center of Education Statistics in 1969, U. S. Department of HEW, Washington, D. C.

Wage and salary payments for non-academic personnel in colleges and universities will likely tend to increase faster than enrollments, and probably faster than the number of faculty members. --(John Dale Russell/Higher Education Consultant/ Bloomington, Indiana.) As salaries for faculty members rise, it will be good economy to provide these more expensive professors with clerical and technical help more liberally than has been done in the past.

Automation and computerization will not reduce appreciably the number of non-academic employees, but will raise the general level of ability required, and that will tend to raise the wage and salary level. Unionization of non-academic personnel can be expected in most institutions of higher education, especially those in urban centers. This will inevitably tend to raise the average wage of these employees.

To illustrate the impact of inflation on net income, I have reproduced a graph (see next page) which appeared in the August 15, 1969 issue of Life magazine.

The graph depicts a family of four with an income of $10,000 in 1959 being raised 50% ($5,000) in 10 years to an apparent income of $15,000 in 1969 dollars with a real gain of only $575 (in 1959 dollars) of disposable income. The article made these comments,"The biggest factor of all is inflation, which has skyrocked in the last two years to a 10-year total of 26%. Today inflation is at an annual rate of 7.2%.



Real Gain---$575. (1959 dollars)

A university must keep and recruit able teachers in an academic marketplace that is increasingly competitive -- not only in salaries but in research opportunities, and laboratory and library facilities, resources in which the university clearly has the upper hand. States and institutions engaged in long-range planning in finances to support higher education cannot escape the dazzling statistics and ever-rising curves that surround faculty salaries and non-academic wages.

KEY FACTOR--GRADUATE EDUCATION

It is well known that graduate education is much more costly than undergraduate education, although the precise magnitude of the difference is hard to determine because the record keeping practices of our universities obscure the differences by lumping undergraduate and graduate costs together. Estimates indicate that graduate programs are between two and 10 times as costly as their undergraduate counterparts, and in a few specialized scientific fields, the differential may be even greater than 10 to one. These higher costs of graduate education have been bearable because (a) graduate programs were concentrated in only one or at

most a few public institutions in each state, and (b) the federal government has been providing most of the money for expansion of research and graduate education in our universities.

The availability of federal monies has fostered a rapid increase in the number of doctoral degrees awarded. We have reached the level where the number of institutions awarding doctoral degrees is causing some reappraisal of the federal role in supporting graduate school expansion. A concise statement on this issue was made by Kenneth Pitzer, a member of the President's Science Advisory Committee, in an address to the American Chemical Society:

> In my opinion, we should make it abundantly clear that we now have enough or more than enough centers for doctoral study and research and that no encouragement will be given from federal sources to new centers or to those presently of marginal quality. The state should be urged, through their individual coordinating mechanisms, to control the number of state colleges and universities that are authorized to offer the Ph. D. degree. (Chemical and Engineering News, April 21, 1969, p. 73).

The pressures for more institutions to enter the doctoral field will continue to be strong. Federal support for this expansion is likely to be much harder to obtain in the future, especially since the federal government does not seem to be willing to continue support for the existing programs, much less provide the money to pay for launching new programs. In numerical terms, "Resident graduate enrollment has been the fastest growing component of total degree-credit enrollment." Projections of Educational Statistics to 1977-78, U. S. Office of Education, 1969.

"If additional institutions begin doctoral work it seems likely that they will nearly all be public rather than private, and that state, rather than federal funds will be the main source of support. It appears that we now have the institutional capacity to supply the doctoral and other advanced degree graduates that the nation will need during the next decade, except in a few specialized areas like medicine and dentistry, since many of our present doctoral institutions are operating below an efficient enrollment level, it will be better to concentrate on a better job in the doctoral institutions we now have rather than to spread ourselves thinner." --(John K. Folger/Executive Director/ Tennessee Commission on Higher Education.) I'm sure that a strong case can be made for the proposition that most, if not all states, would get bigger dividends from greater investment in existing doctoral universities, rather than support of more institutions of the doctoral level. In some doctoral universities we can go one step further and reason that a greater concentration of support in existing programs would be a much wiser investment of resources than further diluting through invitation of new doctoral programs.

It seems unlikely that many of our emerging universities will change their goals to offer graduate programs. We have come to accept the almost universal proposition that the state college that enrolls four to five thousand students will have several professional schools, will be seeking to have its name changed to university, and will have plans for initiating doctoral programs.

The possibilities for economies exist, if we have the will to plan and manage our university development in that direction. But a realistic projection will include the assumption that the trend for more institutions to enter the graduate field will continue, and it will contribute to the rising cost of higher education.

KEY FACTOR--COMMUNITY AND JUNIOR COLLEGES MOVEMENT

"Nothing that has happened in education in the past half century can surpass the recent flowering of the uniquely American junior college. This fall some 60 new two-year colleges opened--bringing the total to about 960. Expansion has been occurring at the rate of almost one a week for the past eight years, and it is likely to continue until most states have, like Florida and California, put community colleges within commuting range of nearly all their populations." (Edmund J. Gleaser, Jr./Executive Director of the American Association of Junior Colleges.)

The trend toward the commuter institution arises primarily from the need to make educational opportunities available to low and middle-income families and for those who, for a variety of reasons, cannot be away from home or job to attend college. Thus, states with the most dramatic increases in college-going rates will be those offering commuter opportunities at both two-year and senior colleges.

There are approximately 7,000,000 students enrolled in all colleges and universities this fall of 1969. Of this number, about 2,000,000 are enrolled in 960 two-year colleges. About 250 of this number are private junior colleges, enrolling approximately 120,000 students (6% of total enrollment). [1] "Enrollments at these schools have increased at the rate of about 15 percent each year since 1960, and an average of about one-third of all students entering a higher education program start in junior college." (Edmund J. Gleazer, Jr./Executive Director of the American Association of Junior Colleges.)

Today the community colleges are offering scores of educational experiences to prepare men and women to enter occupations that are rewarding both in terms of earning potential and social standing. This is a happy story. But the very expansion and growth which makes it so has also generated some problems.

Most public community colleges, of course, depend largely on local and state tax dollars for operations and construction. But the Federal support has helped many colleges to move more rapidly toward meeting planning objectives in program and facilities development.

The first Federal effort for two-year colleges came along with the passage of the Higher Education Facilities Act of 1963. This provided for grants to construct academic facilities for undergraduate education, and the act specifically stated that 22 percent of construction funds appropriated by Congress must be allotted to public community colleges and technical institutes. This allotment was raised to 23 percent for 1968 and 24 percent in 1969.

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[1] Louisville Courier-Journal, August 4, 1969.

Financing must be considered a priority problem for the future. A special report by the Carnegie Commission on Higher Education, documents the challenge, "We propose the continuation and expansion of a number of existing (federal) programs: for construction--including start-up grants for 500 new two-year community colleges and --" [2]

Then there is the matter of faculty: our best judgement based on trends and socio-economic factors project a need of an additional 60,000 professional staff for the community and junior colleges. This is an 81% increase over the Fall of 1969 (See Table 7, Page 31).

The joint efforts of federal, state and local governments mixed with the aspirations of educators to offer an extensive educational program at community level will spread dollar appropriations and benefits to a larger number of institutions. A new pattern of resource allocation and influence will surface.

STATE-WIDE COORDINATING AGENCIES

One of the most influential factors which can lead to the strengthening (possibly economies) of the state's role in higher education is a coordinating agency which acts in liaison between both the state and national capitols and the higher education institutions. Such an agency when established should be given a clear statement of its mission and must have sufficient authority to carry out its responsibilities. Coordinating agencies for public higher education have been generally adopted by the great majority of states. Their attempts have been to make rational the compexities of college and university development. A program of expanded opportunities adequate to impending needs cannot be developed on a haphazard basis.

College and university administrators and governmental authorities have accommodated themselves to this nascent agency which promises to gain increasing significance as it matures. "The trend is for such coordinating boards to be composed either of a majority or a totality of citizen members who do not directly administer or govern. State legislatures and governors have delegated increasing power to such boards over statewide planning, budgets, educational and research programs, and other matters pertaining to the expansion of the total state higher educational complex." --(Lyman A. Glenny/Director/Illinois Board of Education.)

The necessity for statewide planning is now generally accepted by all concerned, and recognizing their own limitations, legislatures assign to coordinating agencies the task of recommending public policy for higher education even though ultimately legislators must act on agency recommendations. While legislators are relieved not to have the responsibility for determining priorities among contending colleges and universities for additional funds and facilities. At the same time they may be resentful of the agency's expert fact finding and planning proficiency which discourages purely political decisions in such matters as location of new campuses and allocations of funds to institutions.

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[2] Quality and Equality: New Levels of Federal Responsibility for Higher Education, Carnegie Commission on Higher Education, December, 1968.

The more clearly defined the long-range objectives, the more rationally and easily made are decisions on immediate expansion plans of individual institutions or systems of institutions. Such planning also works to the advantage of the college administrators and state officials in that both have a basis beyond aspiration and wishful thinking for making decisions.

It is surely obvious to all of us, there must be some form of independent planning if we are to obtain the maximum return on the millions, which inevitably will be invested. A. J. Brumbaugh, Consultant to the Southern Education Board states, "I know of no viable alternate to long-range planning for higher education." It is for this reason that I have emphasized the importance of a statewide agency to draw-up comprehensive plans, long-range in scope which will avoid fiscal chaos. Otherwise institutions will seek favored positions before legislative bodies; costly duplication of programs will result; public confidence and thus financial support will be weakened; and quality, quantity and educational opportunity will diminish.

CLOSING

I have not studied detailed projections of the economic growth in each state or region, but it does not appear that any state or region will be able to finance its expansion of higher education in the next 10 years from the growth of existing state tax revenues (recognizing other social and welfare demands). Many of our states are growing at above average rates economically, but the educational requirements are growing faster than the economy.

In the final analysis it comes down to what the people and the federal and state legislatures want to do about supporting public higher education. The key question for higher education support is the mix of tax revenues. Whether the governors and legislators can be convinced that new taxes for higher education are more important than competing demands for health, public safety, welfare, highways and other state functions. The value that they, and the general public, place on higher education and the services it renders to society is of paramount importance. I do not believe that there is a basis on which we can say that the addition of 20 billion in new revenues for higher education in and of itself represents an unmanageable goal for the nation. The rivalry for federal and state tax dollars makes the problem of new tax revenues for education more difficult than it might be otherwise, but it still comes back to the willingness of the taxpayers, -- the citizens, to provide the necessary funds.

"In the post-war era, higher education enjoyed widespread public confidence and esteem, and it has benefited financially as a result. There has been considerable speculation on the effect that demonstrations and disorders on the campuses will have on the appropriations process. What is even more difficult to predict is the longer run effects of changes on our campuses. Students are likely to continue to seek a larger voice in their education and in the rules of conduct on the campus. The conflict between the generations is as old as time, but it has become intense in recent years, and the campus has become a popular arena in which the generations confront each other. The

underlying conditions which contribute to campus unrest are likely to continue in the future, even if actual violence and disruptions of the educational process are controlled.

"Public and legislative attitudes toward a changing order in higher education could have a major effect on the level of appropriations. We can't project these effects very reasonably, and a very wide range of possibilities exists. How higher education will actually fare in the arena of pressures and counter pressures that constitute the democratic process will depend upon the willingness of the legislators, taxpayers, and of the citizens, to provide the necessary funds." --(John K. Folger/Executive Director/ Tennessee Commission on Higher Education.)

Hopefully these remarks will suggest the extension of your financial planning time-frame from the typical biennium to a 5-year or possibly a 10-year comprehensive scheme. Such a long-range financial plan should be directed to include salaries, instructional support, classroom supplies, student services, administration costs, research programs extension services, library services, maintenance and operations, auxiliary services, student aid and debt service. Thus, planning imposes a heavy responsibility upon university and college administrators to deal with immediate problems while contemplating disturbing and disruptive alternatives to achieve new plateaus of performance.

Footnote: Trends, projections, statements and ideas discussed in this paper have been drawn from an extensive number of recent publications (See bibliography Page 32) on the subject of financing higher education. Many of the statements and projections are based on different assumptions (See Tables 1 - 7, Pages 25 - 31), therefore, I wish to absolve the writers or publishers citied for any responsibility of interpretations or parapharsing rendered on my part.

SUMMARY OF TABLES

	PAGE
Enrollment (Fall 1957 to 1977)	25
Source of Funds	26
Federal Funds for Education	27
Tuitions, Board and Room	28
Faculty Salaries	29
Professional Staff (4-Year Public Institutions)	30
Professional Stsff (2-Year Public Institutions)	31

TABLE 1.--Enrollment in Institutions of Higher Education: United States, Fall 1957 to 1977
[In thousands]

Year (fall)	Institutions of Higher Education[1]	
	Public	Nonpublic
1957	1,896	1,328
1958	2,034	1,386
1959	2,134	1,438
1960	2,276	1,512
1961	2,469	1,578
1962	2,753	1,651
1963	3,066	1,700
1964	3,468	1,812
1965	3,970	1,951
1966	4,349	2,041
1967	4,816	2,096
	Projected[2]	
1968	5,185	2,184
1969	5,354	2,187
1970	5,623	2,229
1971	5,951	2,292
1972	6,319	2,367
1973	6,691	2,440
1974	7,046	2,504
1975	7,394	2,562
1976	7,720	2,612
1977	8,018	2,650

[1]Includes degree-credit and nondegree-credit enrollments.

[2]For assumptions on which projections of higher education enrollments are based and for projection methods used, see footnotes and methodology in publication entitled, Projections of Educational Statistics to 1977-78 by U.S. Office of Education.

TABLE 2.--Estimated Expenditures of Institutions of Higher Education, by Source of Funds: United States, 1964-65 to 1968-69
[Amounts in billions of dollars]

Source of Funds, by Level and Control of Institution	1964-65 Amount	1964-65 Percent	1966-67 Amount	1966-67 Percent	1968-69 Amount	1968-69 Percent
Institutions of Higher Education:						
Total public and private	13.1	100.0	16.9	100.0	20.4	100.0
Federal	2.8	21.4	3.9	23.1	5.1	25.0
State	3.1	23.6	3.9	23.0	4.6	22.5
Local	.3	2.3	.4	2.4	.5	2.5
All other	6.9	52.7	8.7	51.5	10.2	50.0
Total public	7.6	100.0	9.9	100.0	12.2	100.0
Federal	1.4	17.7	1.9	19.0	2.5	20.4
State	3.0	39.6	3.8	38.5	4.5	37.3
Local	.3	4.3	.4	4.1	.5	3.8
All other	2.9	38.4	3.8	38.4	4.7	38.5
Total private	5.5	100.0	7.0	100.0	8.2	100.0
Federal	1.4	25.2	2.0	28.3	2.6	31.5
State	.1	1.3	.1	1.4	.1	1.4
Local	$	.2	$	.2	$	.2
All other	4.0	73.3	4.9	70.1	5.5	66.9

SOURCE: Data are based on statistics shown in U.S. Department of Health, Education, Office of Education publications: Financial Statistics of Higher Education, and Digest of Educational Statistics - 1967. Above table extracted from page 18 of Digest of Educational Statistics - 1968.

TABLE 3.--Federal Funds for Education and Related Activities: Estimated Obligations for Fiscal Years 1962-63 to 1968-69
[In thousands of dollars]

Type of support, level, and program area	1962-63	1964-65	1966-67	1968-69
	Federal Funds Supporting Education in Educational Institutions			
Higher education	1,397,900	2,052,600	3,590,626	3,590,790
Basic research in U.S. educational institutions	691,600	784,900	1,036,473	1,102,300
Research facilities	157,900	191,700	203,050	192,400
Training grants	234,600	282,400	363,608	433,291
Fellowships and traineeships	143,000	196,900	350,162	431,920
Facilities and equipment	41,000	384,100	822,203	289,276
Other institutional support	43,400	93,400	169,925	258,200
Other student assistance	69,900	100,400	590,586	787,451
Other higher education assistance	16,400	18,800	54,619	95,952
Higher education (Loans)	395,900	528,200	741,281	779,722
College facilities loans	305,200	369,000	503,629	525,818
Student loan, NDEA	90,700	159,200	237,652	253,904
Applied research and development	805,700	952,300	1,064,699	1,144,300
Agricultural extension service	63,000	85,400	92,824	101,005

SOURCE: Compiled by the National Center for Educational Statistics, Office of Education, U.S. Department of Health, Education, and Welfare, from information in the "Special Anslysis, Budget of the United States," Bureau of the Budget Research data are from "Federal Funds for Research, Development, and Other Scientific Activities XVI, "National Science Foundation. Extracted from pages 107 and 108, Digest of Educational Statistics - 1968.

TABLE 4.--Estimated Average Charges (1967-68 dollars) Per Full-Time Undergraduate Resident Degree-Credit Student in Institutions of Higher Education, by Institutional Type and Control: United States, 1957-58 to 1977-78

[Charges are for the academic year and in constant 1967-68 dollars]

Year and Control	Total tuition, board, and room		Tuition and required fees	
	University	2-year	University	2-year
1957-58:[1]				
Public------	$969	$626	$244	$84
Nonpublic---	1,810	1,044	950	401
1962-63:[2]				
Public------	1,103	688	300	108
Nonpublic---	2,261	1,421	1,285	671
1967-68:[1]				
Public------	1,236	744	386	129
Nonpublic---	2,617	1,812	1,567	924
1972-73:[3]				
Public	1,366	808	456	149
Nonpublic	3,016	2,202	1,877	1,184
1977-78:[3]				
Public------	1,495	873	525	169
Nonpublic---	3,415	2,592	2,186	1,443

[1]Estimated.

[2]Represents charges weighted by numbers of full-time degree-credit students, 1961-62 through 1964-65, and weighted by full-time resident students for 1966-67. These charges, shown in table 49 in current dollars, were converted to 1967-68 constant dollars by application of the Consumer Price Index.

[3]The projection of basic student charges is based on the assumption that these charges will continue to increase through 1977-78 as they did during the base years of 1961-62 through 1964-65 and 1966-67, in constant dollars.

NOTE: Data are for 50 States and the District of Columbia for all years.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: (1) "Higher Education Basic Student Charges" 1961-62 through 1964-65 and 1966-67 and (2) "Opening (Fall) Enrollment in Higher Education" 1961 through 1964 and 1966.

TABLE 5. --Faculty Salaries
1968-69

Weighted average salaries in higher education for the 9-month academic year 1968-69 vary with professional rank and with type of institution as follows:

Rank	Universities	Liberal arts colleges	Junior colleges
Professor	$17,600	$14,737	$15,900
Associate professor	12,907	11,706	12,752
Assistant professor	10,534	9,779	10,665
Instructor	8,092	7,895	8,750

SOURCE: AAUP Bulletin, Appendix Table 5 of 1968-69 Salary Survey published in Summer 1969 issue.

TABLE 6.--Total Full-Time and Part-Time Professional Staff in 4-Year Public Institutions of Higher Education, by Primary Function: United States, 1st Term 1957-58 to 1977-78

Year	Total professional staff	Instructional staff[1]	Other professional staff	
			Administration and services	Organized Research
1957-58	183,339	150,890	13,171	19,278
1962-63	247,187	195,115	19,837	32,235
1967-68	375,000	294,000	30,000	51,000
PROJECTED[2]				
1972-73	457,000	358,000	37,000	63,000
1977-78	542,000	424,000	44,000	74,000

[1]Includes instructional staff for resident degree-credit courses and other instructional staff.

[2]The projection of total full-time and part-time instructional staff for resident degree-credit courses in 4-year public institutions is based on the assumption that the ratio of total degree-credit enrollment to instructional staff for resident degree-credit courses in these institutions will follow the 1957-58 to 1963-64 trend.

The projection of total full-time and part-time instructional staff for other than resident degree-credit courses, professional staff for administration and services, and professional staff for organized research, is based on the percentage each was of total full-time and part-time instructional staff for resident degree-credit courses in 1963-64. These percentages in 4-year public institutions were 26, 13, and 22 percent, respectively, and are assumed to remain at the 1963-64 level to 1977-78.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, 1st term 1957-58 to 1963-64. Extracted from page 58 of the publication entitled, Projections of Educational Statistics to 1977-78 by U.S. Office of Education.

TABLE 7.--Total Full-Time and Part-Time Professional Staff in 2-Year Public Institutions of Higher Education, by Primary Function: United States, 1st Term 1957-58 to 1977-78

Year	Total professional staff	Instructional staff[1]	Other professional staff	
			Administration and services	Organized Research
1957-58	25,489	22,921	2,557	11
1962-63	38,036	34,257	3,755	24
1967-68	74,000	66,000	7,000	L
		PROJECTED[2]		
1972-73	102,000	92,000	10,000	L
1977-78	134,000	121,000	13,000	L

L = less than 500.

[1]Includes instructional staff for resident degree-credit courses and other instructional staff.

[2]The projection of total full-time and part-time instructional staff for resident degree-credit courses in 2-year public institutions is based on the assumption that the ratio of total degree-credit enrollment to instructional staff for resident degree-credit courses in these institutions will follow the 1957-58 to 1963-64 trend.

The projection of total full-time and part-time instructional staff for other than resident degree-credit courses, professional staff for administration and services, and professional staff for organized research, is based on the percentage each was of total full-time and part-time instructional staff for resident degree-credit courses in 1963-64. These percentages in 2-year public institutions were 40, 15, and less than one percent, respectively, and are assumed to remain at the 1963-64 level to 1977-78.

NOTE: Data are for 50 States and the District of Columbia for all years. Because of rounding, detail may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education publications: "Faculty and Other Professional Staff in Institutions of Higher Education," biennially, 1st term 1957-58 to 1963-64. Extracted from publication entitled, Projections of Educational Statistics to 1977-78 by U.S. Office of Education.

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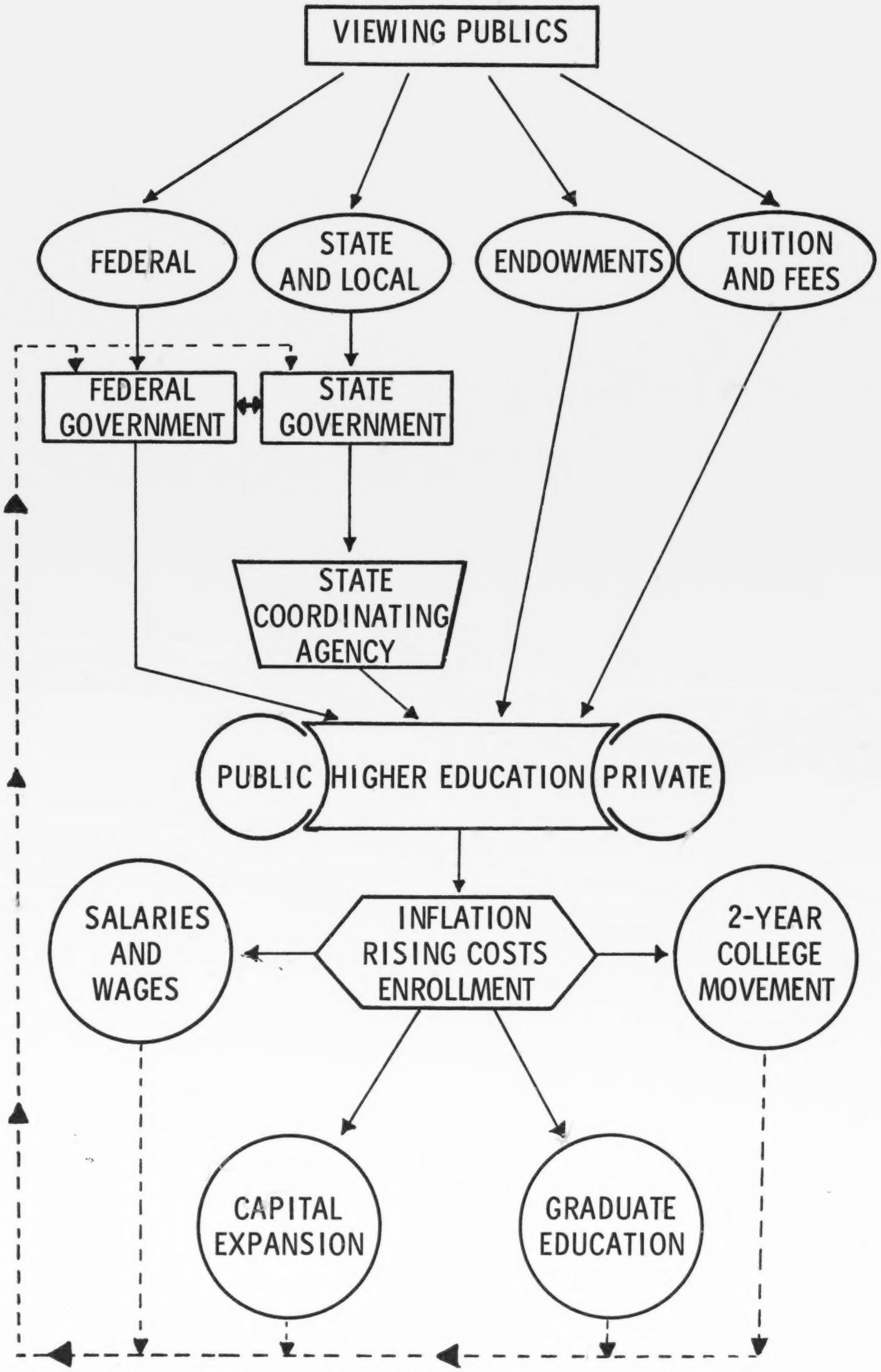

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